

25. The oligonucleotide according to claim 24, wherein the oligonucleotide binds to a region of the nucleic acid which comprises:

- a) a part of the 5'-noncoding region optionally including a translation start,
- b) a translation start optionally including a part of the coding region, or
- c) a part of the coding region optionally including a part of the 3'-noncoding region.

26. The oligonucleotide according to claim 24, comprising a sequence selected from the group consisting of:

- | | |
|-----------------|----------------------------|
| SEQ. ID NO. 2: | 3'- GGTTTGGGTGGAGGTGG -5'. |
| SEQ. ID NO. 3: | 3'- GGAGGTGGTACCCCCGG -5'. |
| SEQ. ID NO. 4: | 3'- GGTGGTACCCCCGG -5'. |
| SEQ. 10 NO. 5: | 3'- GGAGGTGGTACCCC -5'. |
| SEQ. 10 NO. 6: | 3'-AGAAAGAACGAAAGGAA -5'. |
| SEQ. 10 NO. 7: | 3'- GGAGGTGGTACC -5'. |
| SEQ. ID NO. 8: | 3'- GGAGCGATGGCTTCCA -5'. |
| SEQ. ID NO. 9: | 3'- AAAGGAACGGGAGCG -5'. |
| SEQ. ID NO. 10: | 3'- GGTCCGTTTGGGTGG -5'. |
| SEQ. ID NO. 11: | 3'- CTTACAGGTCCGTTGA -5'. |
| SEQ. ID NO. 12: | 3'- GGCCGTGTTCGCTGT -5'. |
| SEQ. ID NO. 13: | 3'- TCACCCCTCTTTCTGG -5'. |
| SEQ. ID NO. 14: | 3'- GGACACCGACACGG -5'. |
| SEQ. ID NO. 15: | 3'-AACGGGAGCGATGG-5'. |

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g) the conjugation of the oligonucleotide to a 2'5'-bonded oligoadenylate or a derivative thereof, optionally conjugated via a linker, and

h) the introduction of a 3'-3' or 5'-5' inversion at the 3' or 5' end of the oligonucleotide.

29. The oligonucleotide according to claim 28, wherein the oligonucleotide contains one or more modification independently selected from the group consisting of:

a) the replacement of a phosphoric acid diester internucleoside bridge by a modified phospho bridge,

where a modified phospho bridge is a phosphorothioate, phosphorodithioate, NR^1R^1 -phosphoramidate, boranophosphate, phosphate-(C_1 - C_{21})-O-alkyl ester, phosphate-[(C_6 - C_{12})aryl-(C_1 - C_{21})-O-alkyl] ester, (C_1 - C_8)alkylphosphonate, or (C_6 - C_{12}) arylphosphonate bridge,

where

R^1 and R^1 are independently selected from the group comprising hydrogen,

(C_1 - C_{18})-alkyl, (C_6 - C_{20})-aryl, (C_6 - C_{14})-aryl-(C_1 - C_8)-alkyl, or

R^1 and R^1 , together with the nitrogen atom carrying them, form a 5- to

6-membered heterocyclic ring which can additionally contain a further heteroatom

from the group consisting of O, S, and N;

b) the replacement of a phosphoric acid diester internucleoside bridge by a "dephospho" bridge.

where a "dephospho" bridge is a formacetal, 3'-thioformacetal,

methylhydroxylamine, oxime, methylenedimethylhydrazo, dimethylenesulfone, or silyl bridge.

c) the complete or partial replacement of the sugar phosphate backbone (replacement of sugar phosphate units) by other units,

where another unit is suitable for synthesizing a "morpholine derivative"

oligomer, a polyamide nucleic acid ("PNA"), or a phosphomonoacid ester nucleic acid,

d) the replacement of a β -D-2'-deoxyribose unit by a modified sugar unit,

where a modified sugar unit is an α -D-2'-deoxyribose, L-2'-deoxyribose,

2'-F-2'-deoxyribose, 2'-O-(C₁-C₆)alkylribose, 2'-O-(C₂-C₆)alkenylribose,

2'-[O-(C₁-C₆)alkyl-O-(C₁-C₆)alkyl]ribose, 2'-NH₂- 2'-deoxyribose,

β -D-xylofuranose, α -arabinofuranose, 2,4-dideoxy- β -D-erythro-hexopyranose, a carbocyclic sugar analog, an open-chain sugar analog, or a bicyclo sugar analog,

e) the replacement of a natural nucleoside base by a modified nucleoside base,

where a modified nucleoside base is 5-(hydroxymethyl)uracil, 5 aminouracil,

pseudouracil, dihydrouracil, 5-(C₁-C₆-alkyl)uracil, 5-(C₂-C₆)-alkenyluracil,

5-(C₂-C₆)-alkynyluracil, 5-(C₁-C₆)-alkylcytosine, 5-(C₂-C₆)-alkenylcytosine,

5-(C₂-C₆)-alkynylcytosine, 5-fluorouracil, 5-fluorocytosine, 5-chlorouracil,

5-chlorocytosine, 5-bromouracil, 5-bromocytosine, a 7-deaza-7-substituted purine, or a 7-deaza-8-substituted purine.

f) conjugation to a molecule,

where the molecule is a polylysine, intercalator, fluorescent molecule, crosslinker, lipophilic molecule, lipid, steroid, vitamin, polyethylene glycol, oligoethylene glycol, (C₁₂-C₁₈)-alkyl phosphate diester, or -O-CH₂-CH(OH)-O-(C₁₂-C₁₈)-alkyl group.

g) conjugation to a 2'5'-linked oligoadenylate or a derivative thereof

where a 2'5'-linked oligoadenylate or a derivative thereof is a 2'5'-linked triadenylate, 2'5'-linked tetraadenylate, 2'5'-linked pentaadenylate, or cordycepin (2'5'-linked 3'-deoxyadenylate), where the conjugation optionally takes place via a linker and where the 5'-end of the 2'5'-linked oligoadenylate optionally contains a phosphate, diphosphate, or triphosphate group, and

h) the introduction of a 3'-3' or 5'-5' inversion at the 3'- or 5'- end of the oligonucleotide.

30. The oligonucleotide according to claim 28, wherein 1 - 5 terminal internucleoside bridges are modified at the 5'- or 3'- end of the oligonucleotide.

31. The oligonucleotide according to claim 28, wherein the internucleoside bridges located at the 3'- or 5'- end of nonterminal nucleosides which contain a pyrimidine base are modified.

32. The oligonucleotide according to claim 28, comprising a sequence selected from the group consisting of:

- FE
SUB
E
- SEQ ID NO. 21: 3'- GsGsTsTsTGGGTsGGAGGsTsGsG -5',
SEQ ID NO. 22: 3'- GsGsAsGGTsGGTsACsCCsCCsGsG -5',
SEQ ID NO. 23: 3'- GsGsTGGTsACsCsCCsCsGsG -5',
SEQ ID NO. 24: 3'- GsGsAGGTsGGTsACsCsCsC -5',
SEQ ID NO. 25: 3'- AsGsAAAGAAAsCsGAAAGGsAsA -5',
SEQ ID NO. 26: 3'- GsGsAGGTsGGTsAsCsC -5',
SEQ ID NO. 27: 3'- GsGsAGCsGATsGGCsTsTsCsCsA -5',
SEQ ID NO. 28: 3'- AsAsAGGAACsGGGAGsCsG -5',
SEQ ID NO. 29: 3'- GsGsTCGGTsTsTGGGTsGsG -5',
SEQ ID NO. 30: 3'- CsTsTACAGGTsCsCGTsTsGsA -5',
SEQ ID NO. 31: 3'- GsGsCsCGsTGTsTCGCsTsGsT -5',
SEQ ID NO. 32: 3'- TsCsACsCCsCTsCsTTsTsCsTsGsG -5',
SEQ ID NO. 33: 3'- GsGsAsCACsCGACsACsGsG -5',
SEQ ID NO. 34: 3'- AsAsCsGGGAGCGATsGsG -5',
SEQ ID NO. 35: 3'- AsTsCsTCGGGGTsCsGsTsC -5',
SEQ ID NO. 36: 3'- AsAsAGAACsGAAAGGsAsA -5',
SEQ ID NO. 37: 3'- GsGsTGGTsACsCsCsC -5',
SEQ ID NO. 38: 3'- CsCsCsGGTsACsTsGsA -5, and
SEQ ID NO. 39: 3'- CsCsAsCAGAAAGsAsAsC -5',

where "s" indicates the position of a modified internucleoside bridge.

33. The oligonucleotide according to claim 28, comprising a sequence selected from the group consisting of:

- 11
12
- 500
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1
- SEQ ID NO. 40: 3'- GyGyTyTyTyGxGxGxTxGxGxGxGyGyTyGyG -5',
SEQ ID NO. 41: 3'- GyGyAyGyGyTxGxGxTxAxGxGxCyCyGyG -5',
SEQ ID NO. 42: 3'- GyGyTxGxGxTxAxGxGxCyCyGyG -5',
SEQ ID NO. 43: 3'- GyGyAyGyGxTxGxGxTxAxGyGyGyG -5',
SEQ ID NO. 44: 3'- AyGyAyAxGxGxGxGxGxGxGyGyGyG -5',
SEQ ID NO. 45: 3'- GyGyAxGxGxTxGxGxTxGyGyGyG -5',
SEQ ID NO. 46: 3'- GyGyAxGxCxGxGxTxGyGyGyGyGyGyG -5',
SEQ ID NO. 47: 3'- AyAyAyGxGxGxGxGxGxGyGyGyGyG -5',
SEQ ID NO. 48: 3'- GyGyTyCxGxGxTxTxTxGxGyGyTyGyG -5',
SEQ ID NO. 49: 3'- CyTyTyAxGxGxGxGxTxGxCyGyTyGyG -5',
SEQ ID NO. 50: 3'- GyGyCyCxGxTxGxTxTxGxCyGyTyGyG -5',
SEQ ID NO. 51: 3'- TyCyAyCxGxGxGxTxGxTxTyTyGyGyG -5',
SEQ ID NO. 52: 3'- GyGyAyCxGxGxGxGxGxGxGyGyGyG -5',
SEQ ID NO. 53: 3'- AyAyCyGxGxGxGxGxGxGyGyGyG -5',
SEQ ID NO. 54: 3'- AyTyCyTxGxGxGxGxGxTxGxCyGyGyG -5',
SEQ ID NO. 55: 3'- AyAyAyGxGxGxGxGxGxGxGyGyGyG -5',
SEQ ID NO. 56: 3'- GyGyTxGxGxTxAxGxCyGyGyG -5',
SEQ ID NO. 57: 3'- CyCxGxGxGxTxAxGyGyGyG -5', and
SEQ ID NO. 58: 3'-CyCyAxGxGxGxGxGxGyGyGyG-5',

where

"x" independently of one another represents a phosphodiester internucleoside bridge or a modified internucleoside bridge and

"y" independently of one another represents the replacement of a sugar phosphate unit or of a β -D-2'-deoxyribose unit, the modified β -D-2'-deoxyribose unit being located at the 3'- end of "y".

34. The oligonucleotide according to claim 33, where "y" represents 2' O-methyl-, 2'-O-propyl- or 2'-methoxyethoxyribose, or a PNA unit.

35. The method for inhibiting the expression of tenascin by administering an oligonucleotide according to any one of claim 24-26.

36. The method for therapeutically treating vitiligo by administering an oligonucleotide according to any one of claims 24-26.

37. The method for therapeutically treating hypopigmentation disorders, psoriasis, cancer, inflammatory disorders, or cardiovascular disorders by administering an oligonucleotide according to any one of claims 24-26.

38. A pharmaceutical comprising an oligonucleotide according to any one of claims 24-26 and, if appropriate, one or more pharmaceutical vehicles, optionally including additives.

39. The method for inhibiting the expression of tenascin by administering an oligonucleotide according to any one of claims 24-26, in combination with photochemotherapy, the transplantation of cultured melanocytes, treatment with steroids, or treatment with placenta extracts.

PRELIMINARY AMENDMENT
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40. The method for therapeutically treating vitiligo by administering an oligonucleotide according to any one of claims 24-26, in combination with photochemotherapy, the transplantation of cultured melanocytes, treatment with steroids, or treatment with placenta extracts.

41. A process for the production of a pharmaceutical, wherein an efficacious dose of one or more oligonucleotides according to any one of claims 24-26 is mixed with one or more pharmaceutical vehicles and/or additives.

42. A process for the preparation of an oligonucleotide according to any one of claims 24-26, the oligonucleotide being chemically synthesized on a solid phase.

43. A diagnostic comprising one or more oligonucleotides according to any one of claims 24-26.

44. A test kit comprising one or more oligonucleotides according any one of claims 24-26.